

## ***CTE Standards Unpacking***

### ***Introduction to Medical Diagnostics***

**Course:** Introduction to Medical Diagnostics

**Course Description:** Diagnostic services creates a picture of the health status of a patient at a single point in time. Introduction to Medical Diagnostics will address tests and evaluations that aid in the detection, diagnosis, and treatment of disease, injury, or other physical conditions.

**Career Cluster:** Health Science

**Prerequisites:** None

**Program of Study Application:** Introduction to Medical Diagnostics is the first pathway course in the Health Science career cluster, Diagnostics pathway. The course would follow participation in one or more cluster courses. Completion of Introduction to Health Informatics would prepare a student to participate in Medical Intervention or a capstone experience.

<b>INDICATOR #IMD 1: Investigate Diagnostic Pathway careers.</b>		
<b>SUB-INDICATOR 1.1 (Webb Level: 2 Skill/Concept):</b> Compare and contrast scope of practice of diagnostic careers.		
<b>SUB-INDICATOR 1.2 (Webb Level: 1 Recall):</b> Identify educational requirements for specific careers.		
<b>SUB-INDICATOR 1.3 (Webb Level: 1 Recall):</b> Identify workforce needs and compensation.		
<b>SUB-INDICATOR 1.4 (Webb Level: 1 Recall):</b> Understand licensure, registration, or certification requirements.		
<b>Knowledge (Factual):</b> -Scope of practice of Diagnostic Careers  -Educational and Job Requirements  -Workforce outlook	<b>Understand (Conceptual):</b> -What are diagnostic careers  -What are the requirements to be employed with a diagnostic career  -Understand the employment opportunities within the diagnostic career  -Recognize labor market needs and compensation	<b>Do (Application):</b> -Compare and Contrast 2-3 diagnostic careers  -Develop a logical argument with reasons as to why a diagnostic career would be chosen.  -Tour/Job Shadow within a Diagnostic work environment  -Summarize observations within the Diagnostic work environment.  -Assess the differences

		between licensure, registration and certification requirements.
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**Benchmarks:**

*Students will be assessed on their ability to:*

- Create a presentation on their chosen Diagnostic career.
- List the differences between licensure, registration and certification requirements.
- Use a research tool to report employment opportunities within the Diagnostic Career

***Academic Connections***

**ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):**

ELA.CC.11-12.W.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

9-12.ET.CT.3.2. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.

**Sample Performance Task Aligned to the Academic Standard(s):**

-Research a chosen diagnostic career that includes employment opportunities and licensure, registration or certification requirements.

-Display a chosen diagnostic career that includes an outlook and requirements for employment.

**INDICATOR #IMD 2: Acquire the skills necessary to work in any healthcare facility.**

**SUB-INDICATOR 2.1 (Webb Level: 1 Recall):** Define the Health Insurance Portability and Accountability Act (HIPAA) and explain how it provides confidentiality for healthcare information.

**SUB-INDICATOR 2.2 (Webb Level: 2 Skill/Concept):** Demonstrate infection control standard precautions.

**SUB-INDICATOR 2.3 (Webb Level: 2 Skill/Concept):** Apply and demonstrate professional appearance.

<p><b>Knowledge (Factual):</b></p> <ul style="list-style-type: none"> <li>-Health Insurance Portability and Accountability Act (HIPAA) as a law</li> <li>-Infection control</li> <li>-Professional appearance</li> <li>-Centers for Disease Control and Prevention (CDC)</li> </ul>	<p><b>Understand (Conceptual):</b></p> <ul style="list-style-type: none"> <li>-Implications of HIPAA and how it affects patient confidentiality</li> <li>-Protection of self and patients from spread of disease</li> <li>-Appearance displays professionalism</li> <li>-CDC infection control recommendations</li> </ul>	<p><b>Do (Application):</b></p> <ul style="list-style-type: none"> <li>-Cite evidence of HIPAA compliance in healthcare facilities</li> <li>-Given a scenario identify how HIPAA laws are followed</li> <li>-Assess and explain how HIPAA provides confidentiality for patients</li> <li>-Practice standard precaution techniques</li> <li>-Research a specific disease and find out the cause, treatment and prevention of the spread of the disease</li> <li>-Create a dress code that demonstrates proper professional appearance for healthcare employment</li> <li>-Model proper/improper professional appearance</li> </ul>
<p><b>Benchmarks:</b> <i>Students will be assessed on their ability to:</i></p> <ul style="list-style-type: none"> <li>• Create a multi-media presentation defining HIPAA.</li> <li>• Demonstrate proper handwashing, gloving, blood-borne pathogen control.</li> <li>• Create a graphic poster showing the importance of professional appearance</li> </ul>		
<p><b>Academic Connections</b></p>		
<p><b>ELA Literacy and/or Math Standard</b></p>	<p><b>Sample Performance Task Aligned to</b></p>	

<b>(if applicable, Science and/or Social Studies Standard):</b>	<b>the Academic Standard(s):</b>
9-12 ET.CC.1 Students use technology to communicate with others.	-Create a multi-media presentation defining HIPAA.
9- 12.ET.CT.3. 2 Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.	-Create a graphic poster showing the importance of professional appearance.

<b>INDICATOR #IMD 3: Understand the dynamics of a healthcare diagnostic workplace.</b>		
<b>SUB-INDICATOR 3.1 (Webb Level: 1 Recall):</b> Identify workplace equipment, protocol, and procedures.		
<b>SUB-INDICATOR 3.2 (Webb Level: 1 Recall):</b> Identify professional communication and teamwork.		
<b>SUB-INDICATOR 3.3 (Webb Level: 1 Recall):</b> Identify professional level patient care and interaction.		
<b>Knowledge (Factual):</b> -Workplace equipment (work-based learning experience)  -Professionalism  -Patient care and interaction  -Workplace protocols and procedures	<b>Understand (Conceptual):</b> -What workplace equipment, protocol and procedures are needed in the workplace.  -Communication, confidentiality and teamwork are necessary in the workplace  -Professional level patient care and interaction depends on the scope of practice.	<b>Do (Application):</b> -Participate/Job Shadow in a diagnostic workplace -Identify and explain equipment within the diagnostic workplace.  -Locate protocols and procedures in a workplace environment.  -Define communication as it relates to and affects teamwork  -Make observations during a virtual tour of a diagnostic healthcare workplace  -Interview a diagnostic healthcare worker

		<p>-Reflect and journal the interview experience</p> <p>-Identify professional level patient care and interaction</p> <p>-Differentiate and state the levels of care given by specific diagnostic personnel (Ex. assistant, technician, technologist)</p>
<p><b>Benchmarks:</b>  <i>Students will be assessed on their ability to:</i> <ul style="list-style-type: none"> <li>• Label workplace equipment</li> <li>• Roleplay different types and techniques of communication to also include barriers.</li> </ul> </p>		
<b>Academic Connections</b>		
<p><b>ELA Literacy and/or Math Standard (if applicable, Science and/or Social Studies Standard):</b></p> <p>ELA.11-12.W.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p><b>Sample Performance Task Aligned to the Academic Standard(s):</b></p> <p>-Match five common pieces of equipment found in the workplace of the student's chosen diagnostic career. Include a written description about the use of each piece of equipment.</p>	

### Additional Resources

- American Registry for Diagnostic Medical Sonographer (ARDMS): <http://www.ardms.org/Pages/default.aspx>
- SD My Life: <http://sdmylife.com/>
- Online tour of Diagnostic tools: <http://www.cancercenter.com/eastern/virtual-tour/>
- Quizlet for Medical Terminology: <https://quizlet.com/759301/medical-terminology-350-flash-cards/>
- Quizlet for Review for Medical Diagnostics <https://quizlet.com/76746226/medical-diagnostic-terms-flash-cards/>
- Hospital Virtual tours: <http://www.virtually-anywhere.com/hospital-virtual-tours/>

- HOTT-Health Occupations for Today & Tomorrow: [Healthcareers.sd.gov](https://healthcareers.sd.gov)
- Occupation Outlook Handbook for Pharmacy Technicians:  
<https://www.bls.gov/ooh/healthcare/pharmacy-technicians.htm>
- Search Engine for Careers - [www.onetonline.org](http://www.onetonline.org)